

PROCEEDINGS OF THE CLUB

MEETING OF APRIL 1, 1932

The meeting was called to order at Schermerhorn Hall, Columbia University, at 8:15 P.M. by President Sinnott. There were over 200 people present, including members of the Torrey Botanical Club, Columbia University, etc.

Professor A. C. Seward of Cambridge University gave a very fine talk on "Plant Records of the Rocks."

FORMAN T. McLEAN
Secretary

MEETING OF APRIL 20, 1932

The meeting was called to order at The New York Botanical Garden at 3:30 P.M. by President Sinnott. Minutes of the meetings of March 1 and March 16 were read and approved.

Dr. Fred W. Foxworthy was elected a life member of the Club.

The following people were unanimously elected to membership in the Club: Miss Amy E. Davis, 1882 Grand Concourse, New York City; Mr. Charles P. Dring, 159 Washington Street, Mt. Vernon, N.Y.; Mr. Robert Ferrari, 283 West 11th Street, New York City; Miss Bertha Flealy, Eastside High School, Paterson, N.J.; Mr. George Harrington, 851 West 177th Street, New York City; and Miss Tillie Schnell, 319 Marcy Avenue, Brooklyn, N.Y.

The resignations of Miss Laura M. Bragg and Mrs. Grace R. Frazee were accepted with regret.

A report was made by the Budget Committee.

Mr. Joseph J. Copeland of the College of the City of New York gave a very interesting talk on "A Botanical View of the History of the Yellowstone." The talk was illustrated by colored lantern slides.

FORMAN T. McLEAN
Secretary

MEETING OF MAY 3, 1932

The meeting was called to order at the American Museum of Natural History at 8:15 P.M. by President Sinnott.

Mr. Clarence Lewis, 1000 Park Avenue, New York City, and Miss Dorothy V. Smith, 138 East 94th Street, New York City, were unanimously elected to membership in the Club.

Dr. John M. Arthur of the Boyce Thompson Institute for Plant Research in Yonkers gave an interesting talk on "Some Effects of Visible and Invisible Radiation." His talk was illustrated by a large number of lantern slides. He showed that *Salvia* flowers best with a day length less than seventeen hours. Lettuce flowers only with a day exceeding twelve hours in length. Buckwheat was unaffected by day length, growing even better with twenty-four hours of illumination than with ordinary light and darkness. Geraniums grew and flowered best with eighteen hours of light and extra carbondioxide (ten times the strength ordinarily found in the air). Tomato in contrast with buckwheat flowered best with eighteen hours of light, twenty-four hours of illumination being injurious. With continuous illumination tomatoes accumulated large amounts of carbohydrates and were deficient in nitrogen. He also showed the effects of different portions of the solar spectrum on the growth of plants. In blue light only, four o'clocks were very deep green in color but much dwarfed in spite of the fact that the light was reduced only 10 per cent of the energy value of sunlight. In red light of 37 per cent strength, the same kinds of plants were etiolated. Petunias showed the same sort of response.

Ultra-violet light which has been so widely exploited as beneficial to man and domestic animals proved definitely injurious to plants when the wave lengths were shorter than those encountered in daylight. Even the wave length of 285 millimeters, only five millimeters shorter than those found in ordinary daylight injured plants after fifty hours' exposure. Where the reduced intensities of light were the same composition as sunlight most of the plants thrive best and made the greatest dry growth with 78 to 35 per cent of full sunlight. Tomato and tobacco proved to be shade, plants thriving best with only 35 per cent full light. Dr. Arthur also gave a very interesting report on the reddening of apples. The Macintosh apples grown in New York State are many of them poorly colored. He found that by exposing them to sunlight soon after harvest in August or September, they developed a good red color, but if exposed under window glass no such color developed. Light from the mercury arc lamp injured the

tissues of the apple and prevented coloring at all. Even the light of an incandescent lamp proved injurious to the apples. The injury, however, was not all due to ultra-violet. Using a non-luminous lamp made up entirely of infra-red rays, the same kind of injury was produced. He found ultra-violet lamps with a screen of corex D glass or pyrex glass will color apples satisfactorily during August or September in about forty-eight hours' time. In this way apples raised in the East can be given as good a color as the Western apples. This treatment does not change the flavor or quality but improves the looks of the apples.

FORMAN T. McLEAN
Secretary

NEWS NOTES

THE NEW YORK State Conservation Department has added to the state forest preserve 24,000 acres of land this spring. The larger part is in Herkimer County, near Beaver River. This tract is heavily timbered with virgin forest. The smaller tract consists of 3,000 acres comprising Howell's Island in the Seneca River, near Seneca Falls, Cayuga County. This is mostly meadow land and in the Montezuma marshes. It will be developed as a game refuge and public hunting ground.

AT THE FIFTIETH meeting of the German Botanical Society in Berlin Dr. E. D. Merrill, Director of the New York Botanical Garden, was elected an honorary member. Two other American botanists have received this honor in the past, Dr. Asa Gray and Dr. Roland Thaxter. At the same meeting Dr. George Shull, of Princeton, was elected a corresponding member. Dr. R. A. Harper, A. S. Hitchcock, E. D. Merrill, B. L. Robinson, and William Trelease were already on this list.